

Links Between CALFED Programs

Cause Effect	Levees	Water Quality	ERP and CS	Storage and Conveyance	Water Transfers	Water Use Efficiency	Watershed Management
Levees		Sediment quality limits dredge material usage	--Limits maintenance flexibility -- wetland restorations reduce levee mileage	--Channel modifications and levee setbacks --Flow alterations alter sediment supply			
Water Quality	-- alters risk of salinity intrusion --alters seepage- induced delta TOC loads		Wetland rehabilitation alters TOC loads	--River temperatures and sediment transport --Delta salinity	Alters sources and timing of river flows (gw/sw component of flows)	--Alters irrigation drainage/ gw recharge quality	Alters quality of tribs (pollutant inputs from ag., urban, sediment inputs)
ERP and CS	Affects delta habitat	Contaminants		-- affects riparian and estuarine habitat -- Alters hydrographs -- Diversions cause fish entrainment -- gw pumpage alters terrestrial/riparian habitat	-- Alters gw discharge to land surface --Subsidence alters terrestrial habitat	-- Alters gw discharge to land surface -- Subsidence alters terrestrial habitat	-- alters habitats
Storage and Conveyance	--levee improvements reduce risk of delta conveyance	--Mine drainage constrains reservoir releases --Delta standards constrain flow and exports	--River temperature/ flow standards constrain reservoir operations --Delta and bay standards constrain flows and exports --Biological opinions constrain flows and exports		-- Subsidence alters carrying capacity of sw conveyance structures		--alters sediment supply downstream --alters streamflows
Water Transfers		Limits change in use	Limits terrestrial habitat alterations	Limits physical movement of water		Alters amounts of transferrable water	
Water Use Efficiency	Seepage alters delta water consumption	--Alters irrigation quantities --Alters urban recycling opportunities	Wetland restoration alters water consumption		--Transfer to remote area alters local water use options		--Alters tributary flows and aquifer recharge
Watershed Management			Downstream habitat restoration affects some species, regional biodiversity				